

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant:** Michael J. Rojas                      **Examiner:** Creighton H. Smith  
**Serial No:** 10/740,030                      **Art Unit:** 2614  
**Filed:** December 18, 2003                      **Docket:** 17188  
**For:** **SYSTEM AND METHOD FOR  
INSTANT VoIP MESSAGING**

**Confirmation No. 1731**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION PURSUANT TO 37 C.F.R. § 1.131**

Sir:

I, MICHAEL ROJAS, hereby declare that:

1. I am the Applicant of United States Patent Application No. 10/740,030, filed on December 18, 2003.
2. I completed the invention disclosed and claimed in United States Patent Application No. 10/740,030, prior to November 14, 2003, which is the filing date of United States Publication No. 2005/0105697 A1, cited as a reference under 35 U.S.C. § 103, against the present application by the Examiner.
3. I completed the invention disclosed and claimed in United States Patent Application No. 10/740,030, prior to August 15, 2003, which is the filing date of United States Publication No. 2007/0174403 A1, cited as a reference under 35 U.S.C. § 103, against the present application by the Examiner.
4. The completion of the present invention consisted of the timely preparation of an invention disclosure outlining the subject matter of the invention. As evidence thereof

annexed hereto and made a part of this Declaration is Exhibit A, which is a redacted copy of the invention entitled "Instant Voice Communication" and comprising nineteen (19) pages of description.

5. All of the salient features of Applicant's United States Patent Application No. 10/740,030 are fully described in the annexed Exhibit A.
6. The material, as set forth in Exhibit A, fully and comprehensively describes the subject matter of the claims of the United States Patent Application No. 10/740,030, setting forth the features of the claimed invention.
7. The invention disclosure was timely submitted to outside counsel, Bradley C. Corsello (hereinafter "Corsello"), to prepare and file a provisional patent application.
8. A first draft of the provisional patent application was received from Corsello, prior to August 15, 2003.
9. On August 11, 2003, Corsello and Applicant had a teleconference regarding drafting the application and visit by Corsello to Applicant's office scheduled for August 19, 2003. Annexed herein as Exhibit B is a redacted email evidencing the teleconference.
10. On August 28, 2003, Corsello responded to a series of questions from Applicant regarding information needed to draft the application. Annexed herein as Exhibit C is a redacted email from Corsello.
11. On September 8, 2003, a representative of the assignee, Ayalogic, Neil Adams (hereinafter "Adams") inquired about the status of the application. Corsello informed Applicant that he was working on the revised draft. Annexed herein as Exhibit D is a redacted email regarding the inquiry and response.

12. On September 17, 2003, Adams emailed Applicant inquiring about information and material needed for the draft of the provisional application. Annexed herein as Exhibit E is a redacted email regarding the inquiry.
13. On September 22, 2003, Adams emailed Corsello information and material for the provisional application. The material is appended to the email as an attachment. Annexed herein as Exhibit F is a redacted email regarding the submission of material.
14. On October 3, 2003, assignee, Ayalogic (hereinafter "Ayalogic") decided to look for another law firm to file a patent application regarding the subject matter described in the invention disclosure.
15. Between October 3, 2003-October 27, 2003, Ayalogic searched for a law firm to preparing the patent application.
16. On October 28, 2003, Ayalogic engaging the firm Scully, Scott, Murphy and Presser, P.C., (hereinafter "Scully Scott") to preparing a patent application.
17. On October 30, 2003, Adams forwarded the latest draft of the provisional application to Scully Scott. Annexed herein as Exhibit G is a redacted email forwarding the document.
18. On November 4, 2003, Adams and Scully Scott conducted a teleconference regarding drafting of the application. Annexed herein as Exhibit H is a redacted email reflecting the teleconference.
19. On November 6, 2003, Adams emailed Applicant a revised draft and forwarded draft to Scully Scott. Annexed herein as Exhibit I is a redacted email evidencing the submission of the draft to Scully Scott.

20. Between November 6, 2003 and December 1, 2003, Adams inquired about the status of the application no less than three times.
21. Scully Scott prepared a draft of the application in timely manner. A first draft of the application was sent from Scully Scott to Applicant on December 2, 2003. Annexed herein as Exhibit J is a redacted email enclosing the draft. A series of revisions to the application were emailed to Applicant between December 3 and 4, after a teleconference with Applicant.
22. Applicant diligently reviewed the drafts of the application and provided comments thereto on December 9, 2003. Annexed herein as Exhibit K is a redacted email reflecting the comments.
23. A final draft of the application was sent to Applicant on December 16, 2003.
24. The United States Patent Application No. 10/740,030 was filed on December 18, 2003, after a timely and expedient review by the Applicant.
25. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
MICHAEL ROJAS

7-3-2008  
Dated:





## Instant Voice Communications

REDACTED

Michael Rojas  
Executive Vice President

REDACTED

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# Instant Voice Communications

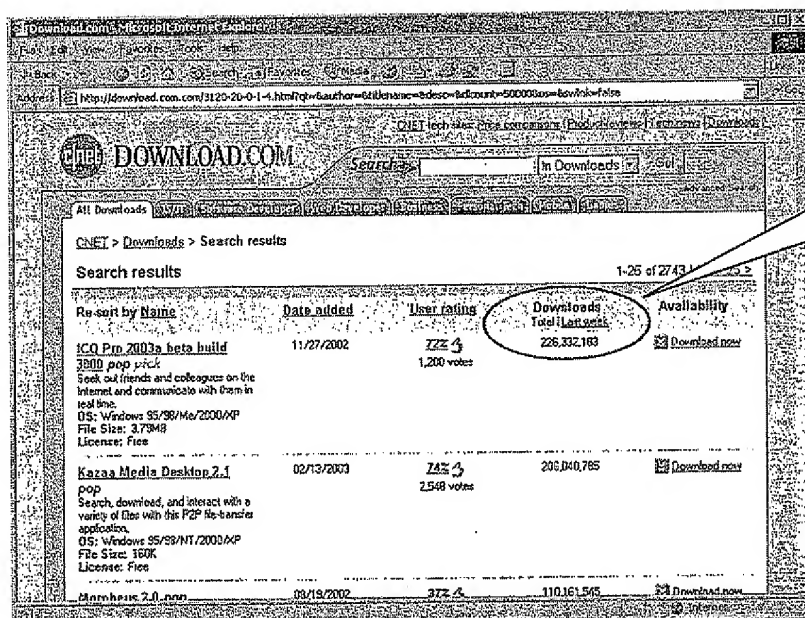
## Abstract

This paper outlines the next step for communications systems – *instant voice communication* over internet protocol. With Ayalogic's™ new offering, QuickTalk™ business professionals will have the option to speak instantly with one another, revolutionizing the concept of telephone, voice mail and instant messaging. The IP technology behind QuickTalk will allow companies with this system to save dramatically on time, equipment and maintenance costs.

## Instant Voice Messaging

QuickTalk™ offers instant connectedness – like an intercom that reaches everyone in the company, or a walkie talkie that spans the world. Touch a button and you can talk immediately with anyone anywhere the internet touches. The closest comparable technology is instant messaging – wildly popular, even with the significant handicap of using text instead of the clear, quality voice over IP that QuickTalk™ offers.

Instant messaging technology has been around in its most familiar form since 1996 and in recent years has become a common feature on PCs and cellular phones. It works like this: you create a “buddy list” of various people you may want to contact. When you want to communicate with a list member you simply type a message and it is instantly delivered to that person's desktop (usually in a pop-up window). How popular is instant messaging? CNET.COM, a prominent downloads site, reported the number of ICQ instant messaging software downloads just in a single week at over 500,000.



Re-sorted by Name	Date added	User rating	Downloads Total/Leads	Availability
ICQ Pm 2003a beta build 3900 pop p.c.k. Seek out friends and colleagues on the Internet and communicate with them in real time. OS: Windows 95/98/Me/2000/XP File Size: 3,734K License: Free	11/27/2002	222 4 1,200 votes	226,332,183	Download now
Kazaa Media Desktop 2.1 POP Search, download, and interact with a variety of files with this P2P file-transfer application. OS: Windows 95/98/NT/2000/XP File Size: 183K License: Free	02/13/2003	245 4 2,548 votes	205,040,785	Download now
Marshall's 2.0.exe	03/19/2002	272 4	110,161,545	Download now

266,332,183  
Downloads!

CNET.COM  
Website  
captured on  
March 27, 2003

The substitution of voice for text makes QuickTalk™ infinitely more attractive. Nothing to type, just push a button and speak. Leave a voice mail message without dialing and check your own messages without lengthy punch pad scroll through. Ease of use and the comfort of voice communications set QuickTalk™ apart.

### **Innovation**

No instant messaging vendor is concentrating on voice. We believe that by combining the best features of instant messaging with Voice over IP technology, we can provide a new form of communication – *instant voice*.

Messages are recorded, digitized, encrypted, and transmitted instantly to anywhere in the world. Since the digitization occurs at the time of recording, the voice quality will not suffer degradation as the message moves through the Internet. The voice quality will be superb every time – regardless of congestion on the global network.

### **New Levels of Privacy and Connectedness**

QuickTalk™ promises to replace voice mail as we now know it with unprecedented levels of both connectedness and privacy. To leave a message with another user, simply push a button and speak. As for receiving messages, you may now choose *in advance* who can reach you instantly and which messages are sent automatically to voice mail – without screening. Change your preferences whenever you like, based on your schedule or specific project needs. Screen all your messages if you like, or send all messages to be stored for later pick up.

When you wish to reach others, a QuickTalk™ display on your PC screen – or a display on certain types of phones – will tell you whether they are “in” or “out,” again according to their preferences. This offers all of the connection of instant messaging with none of the productivity shattering intrusiveness.

### **Wherever You Go, There you Are**

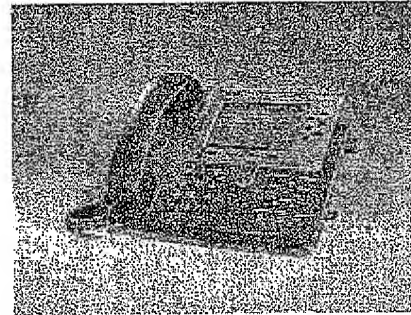
QuickTalk™ can reach you wherever you go, at whatever device you designate. Cellular phones, laptops, palm pilots – all can be used by the QuickTalk™ system whenever you designate that you wish to be reached somewhere other than at your desk. Using Ayalogic's™ proprietary gateway and software, you can now be reached (at whatever level of privacy you choose) instantly everywhere.

### **Voice over Internet Protocol (VoIP)**

Telephone technology has changed very little since its inception. It is still primarily an analog modulated electrical voltage running on copper wires to each home – exactly how Alexander Graham Bell designed it. Now the Internet has is forcing a change in this 100-year-old technology. That change is called Voice over IP.



Voice over IP (or IP telephony) is a method of voice transmission in which analog speech is converted to digital information and transported across a computer network. This technology enables the transmission of speech to anywhere in the world that the Internet touches. When the digital voice information arrives, it is converted back into its analog form using technology built directly into the phone or receiving device.



Cisco 7960 VoIP Phone

The introduction of this technology, primarily by Cisco Systems, alarmed many traditional phone manufacturers. At first, they resisted the technology, citing that it was unreliable and of poor voice quality. However, as the technology's adoption rate grew, they began to incorporate it into their core products. Today, every vendor has some form of IP telephony offering.

Some manufacturers started from scratch creating new communication systems completely based on software, called softswitches. The philosophy was that once the voice was converted into digital packets, it could most easily be manipulated using computers and software. The goal was to speed the introduction of new phone services without having to upgrade expensive hardware. Cisco's CallManager product is an example of a softswitch.



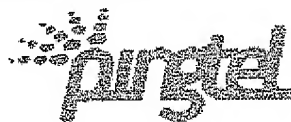
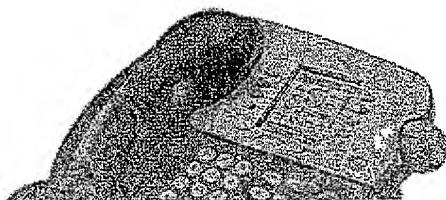
Since Cisco had already cornered the Voice over IP *enterprise market*, the other softswitch vendors charged into the *service provider market*. Their customers were traditional phone companies, such as Verizon, and competitive local exchange carriers known as CLECs. However, when the telecommunication sector slumped, the service providers cut drastically back in capital expenditures, all but evaporating the Voice over IP market for service providers.

In reaction to this, every softswitch vendor did an about-face, and introduced an enterprise-version of their carrier-class products. This means that the enterprise market has over 50 softswitch vendors vying for position in a market dominated by Cisco. To compete, prices on this technology are dropping precipitously.

## New Phones

Accelerating this price pressure is the weekly announcement of new devices that can leverage this technology. Companies such as Alcatel, Teliann, Lucent, Nortel, NEC, Cisco, Snom, Polycom, and Pingtel all offer VoIP phones. Up to now, the major growth inhibitor has been the cost the end device. In a normal communication system, the phones account for over 70% of the cost of the system.

Here is a sampling of the available phones as of March 27, 2003:





Vendor: PingTel  
Model: expressa  
Price: \$599

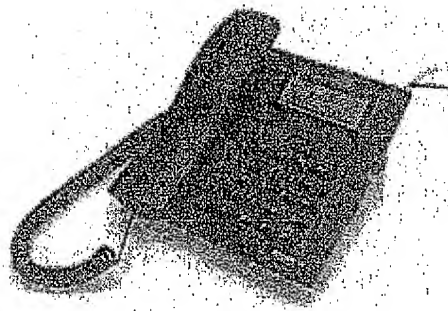
Description:  
The PingTel phone is intelligent, has a built-in java processor and uses industry standard Session Initiation Protocol (SIP).

#### CISCO SYSTEMS



Vendor: Cisco Systems  
Model: 7905  
Price: \$230

Description:  
This is Cisco's entry level IP phone based on the SIP standard.

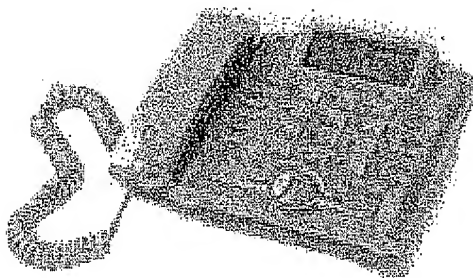


#### snom

VoIP phones

Vendor: Snom  
Model: 100b  
Price: \$240

Description:  
Entry level VoIP Phone, supporting multiple standards such as SIP and H.323/H.450.



#### Teliann

Vendor: Teliann  
Model: HS Teliann IP Phone  
Price: \$120

Description:  
Korean-built, lowest cost VoIP phone on the market today – supports industry standard H.323 – SIP is planned.

The Teliann IP Phone was introduced at the Voice over Network conference (VON2002) in winter of 2002. Retailing at \$120, the phone has the potential of finally removing the price barrier to the market.

## Phone-Speak

Every one of these devices requires a signaling protocol to make them function properly. This protocol is a series of commands and response messages that control every aspect of the phone. Call Hold, Call Forward, Answer, Hang-Up, and other basic features are handled by this protocol. Until recently, another large inhibitor of the market was the lack of agreement as to a standard for this signaling.

Here is a brief list of the competing signal standards:

- **H.323** - This is actually an umbrella standard that covers a number of other standards. This collection originated in the International Telecommunication Union (ITU) and like most telecommunication standards, is large and complex.
- **MGCP** (Media Gateway Control Protocol) - This standard was introduced by the Internet Engineering Task Force to control endpoint conversion devices, called gateways.
- **MEGACO** (MEdia GAteway COntrol Protocol) - Similar to MGCP, this protocol attempts to provide additional functionality in controlling endpoint gateways.
- **SIP** (Session Initiation Protocol) -- A simple text-based protocol which has its roots in HTTP (Hypertext Transport Protocol), the protocol that drives every web page of the Internet today.
- **SCCP** (Skinny Client Control Protocol) -- This is a proprietary protocol that every Cisco phone uses to provide advanced services beyond the standard protocols. Only the Cisco CallManager product supports this protocol.

For the past few years, the industry wrestled with each standard, slowing the adoption of the technology. Many products were introduced that could not communicate with each other because of these different standards.

As of this writing, the standards war is ending, with SIP becoming the winner. Microsoft, Cisco, Alcatel, Lucent, Nortel, and other vendors have all introduced SIP-based products. SIP is favored because of the simple and extensible nature of the protocol. With the adoption of SIP as a standard across all products, the Voice over IP market has removed one more inhibitor.

However, the most important standard that Voice over IP introduces is not the signaling standard, but the *network technology* for the phone itself -- Ethernet and TCP/IP.

## The Real Voice over IP Standard - Ethernet

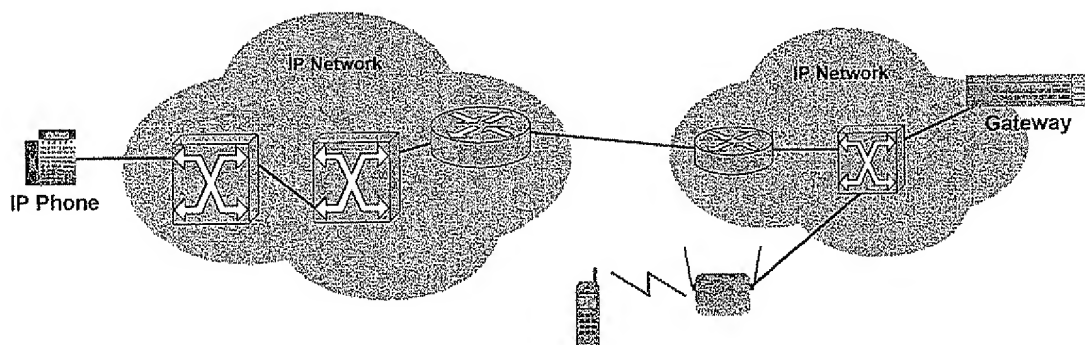
Every one of these devices shares a common characteristic. They all use TCP/IP protocol over Ethernet as the network standard to connect to the computer network.

This provides some very important benefits:

- **Flexibility** – Because Ethernet and TCP/IP are so prevalent, the devices can be deployed in many networking environments. They can be part of Wireless Local Area Networks (WLAN) such as 802.11b and connect over broadband connections such as cable modem, and DSL.
- **Cost** – Since Ethernet is widely available, the equipment to support such a network can enjoy the benefits of economies of scale. Networking gear is inexpensive, easy to obtain and install, allowing a wide audience to be reached.
- **Mobility** - All Ethernet devices have a unique number called the Media Access Control address (MAC). This number represents a unique piece of hardware and is never duplicated. This means that no matter where the phone connects to the network, that particular phone can be located and has the *same* identity.
- **Interoperability** – All the devices that deploy Ethernet inherently have the ability to communicate with one another. The devices may disagree on the *format* of the messages, but with additional software acting as a translator, these devices can communicate.

### Flexibility

Ethernet provides for a wide variety of deployment possibilities. The networking standard can operate over twisted pair cabling, coax, and even wireless. Hundreds of network equipment manufacturers provide equipment for routing, switching, transporting, and configuring Ethernet-based systems.




This allows the customer to choose best solutions for their particular business goals – while maintaining compatibility and interoperability.

## Cost


With so many vendors offering compatible equipment, Voice over IP using Ethernet provides for significant cost savings. For example, a proprietary, 16-port station line card for a typical phone system costs \$1200. This allows the system to be expanded by 16 endpoints. In contrast, to add an additional 16 endpoints to a Voice over IP system, an Ethernet switch could be installed which retails for \$97.

**\$1200**



NEC proprietary 16-port line card  
Price: \$1200

VS.

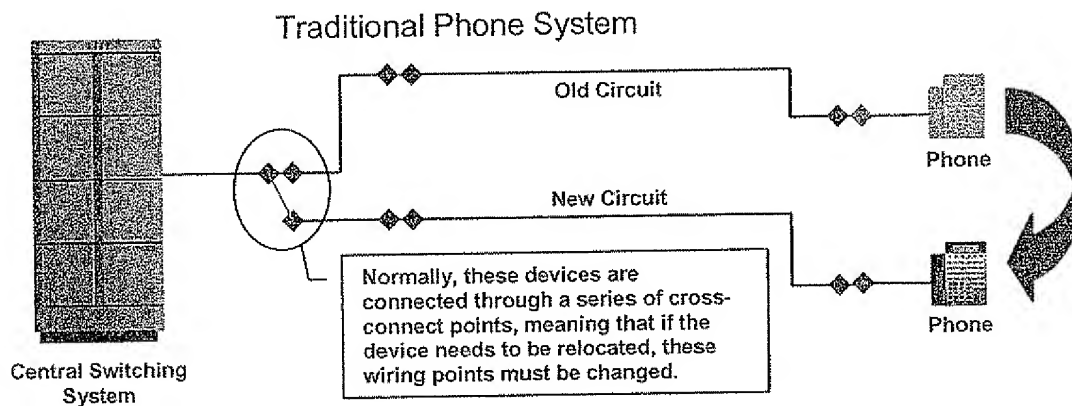


**\$97**

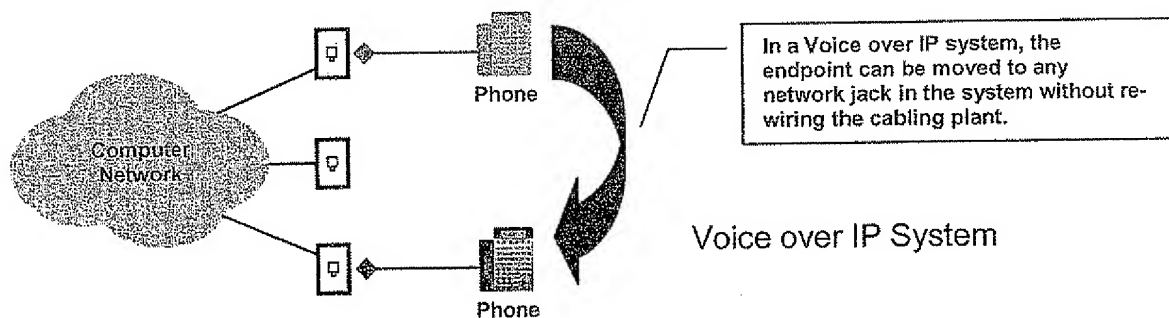
Netgear 16-port 10/100 Dual Speed  
Ethernet Switch  
Price: \$97

## Mobility

In a traditional phone network, the typical business phone is a proprietary device using proprietary electrical signaling to connect to a central switching system. Even though the device may be located far from this system, its proprietary signaling limits where the device can be hooked up. It must be *directly connected*. This means that in order to move the device to a new location, the physical wiring must be changed.



However, when the device employs Ethernet, the customer has complete flexibility in the location of the endpoint. All jacks can be provisioned identically regardless of which physical device will ultimately be connected.

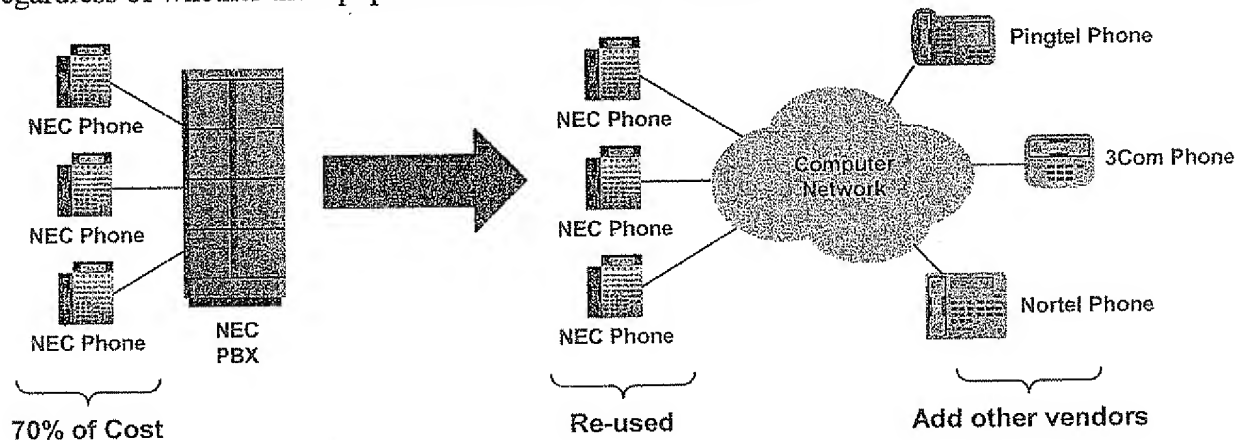


This is possible because each endpoint maintains its identity using the MAC address burned into the device. The *intelligence* in the system has been moved from a large

central device (PBX) into the endpoints itself. This give a Voice over IP system seamless *mobility* in relocating telephony equipment with a significant savings in administration costs.

## Interoperability

Since the proprietary electrical signaling has been eliminated, it is possible to mix multiple vendor devices into the same network. This protects the customer's infrastructure investment and provides flexibility in determining the correct endpoint for a particular solution. Multiple systems can be combined into a single larger system regardless of whether the equipment is from the same vendor.



In the same way mainframes and *dumb* terminals gave way to personal computers and local area networks, the telecommunications industry can now move from cumbersome and costly switches and homogenous equipment to greater independence for end users and economical, as-needed equipment purchasing. All of this makes it possible to build a highly distributed and largely dispersed communication system that provides connectivity opportunities in ways that were not previously envisioned. We believe that this technology has paved the way to provide a new form of always-on, always-accessible, instant voice communications.

All that is required to connect one VoIP endpoint to another – instantly – is the software to control it.

## Why the PC is not a Phone

Most proponents of Voice over IP technology always arrive at the conclusion that the PC should be used as a *replacement* for the phone. After all, a personal computer has a processor, network card, and a sound card, so all you need is software and - voila! - you have an IP phone. In the VoIP industry, this type of software is known as a *softphone*.

Softphones have been slow to catch on because of several reasons:

- **Reliability** – PCs are not always ready to receive calls, because of system reboots, lock-ups, and crashes. If the softphone software is not running at the time the call comes in, the call is lost.
- **Latency** – Not all users are running the latest Windows OS with the latest processor speeds, making it hard to predict whether the system will be able to support real-time two-way audio. In addition, most PCs are used for other daily activities. In some cases, even running Microsoft Word could deprive the softphone of the necessary resources to provide quality audio streaming.
- **Performance** – most audio needs real-time compression in order to be transmitted across the Internet. This compression can consume as much as 25% of most Pentium III processor cycles.
- **Ergonomics** – A personal computer is somewhat uncomfortable to use as a phone. You will need to use a microphone and speakers at a minimum, making it impossible to have a private conversation. If you use a headset, you have a feeling of being tethered to the workstation.
- **Interface** – Most softphones require dialing to be performed using the mouse or keyboard. This is an awkward situation at best. Even if you use the numeric keypad on the keyboard, the numbers are arranged upside-down of those on a telephone.
- **Financial** – Some implementations require the addition of cards into the PC. Many IT departments balk at the task of opening every PC just to deploy a phone system, making this logistically and financially difficult.

According to a recent IDC report, 94% of all users prefer to talk using an actual phone rather than their PC. Any new communication technology must be able to interoperate with new and existing telephony devices.

However, let's look at another growing communication technology – instant messaging.

## **Instant Messaging (IM) for the Business Market**

While the consumer market is quite comfortable with instant messaging, the business market has viewed the technology with distrust, as problematic to manage and secure. Many corporations see the technology as *decreasing* productivity rather than enhancing it. However, whether individual IT groups sanction the use of the technology or not, instant messaging has invaded the workplace. The use of the technology can be broken down into several areas:

- **Personal** – While most companies have put into place strict phone abuse controls, instant messaging has effectively circumvented everything their IT groups have adopted. While most companies allow a reasonable amount of time for “calls to



home”, IM can quickly lead to abuse. If a corporation thinks IM decreases productivity, this is the most common reason provided.

- **Co-Worker** – Usually a very legitimate use, leading to greater productivity if deployed properly. A classic example is the use of the technology in customer service centers. The caller can be kept on the line talking with the service agent, while the agent chats with the problem specialist (co-worker) using instant messaging. This enables the customer to be served without a transfer or being put on-hold.
- **Customer** – Highly productive, convenient, low-cost way to serve your customer. Usually the biggest hurdle is getting the customer to use it.
- **Vendor** – Also productive. Easier to convince vendors to use the technology, since they have a sales motivation.

Since the invasion of IM technology into the enterprise, many large and small companies have rushed into the market. Almost all are focusing on security, manageability, and control in order to satisfy the business environment.

### Current Instant Messaging Vendors

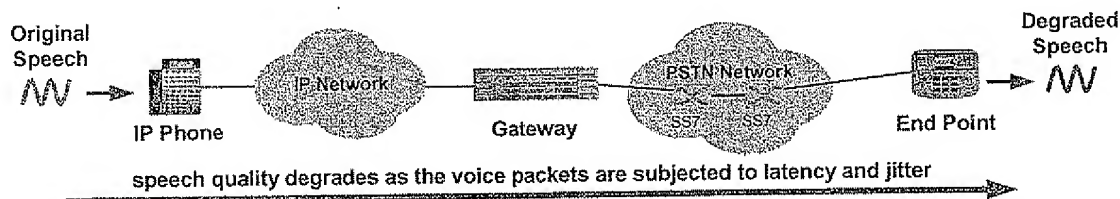
Vendors	Products
All Instant, Inc.	LiveGate, LiveStudio/Live Manager, Live Tracker, Live Archive 2.0
America Online, Inc.	AOL Instant Messenger (AIM) 4.7 ICQ
Bantu, Inc.	Bantu Instant Messaging & Presence Platform 1.5
Flypaper Inc.	Open Web Services Platform 3.0
IBM	Lotus Sametime Server 2.5
Ikimbo	Omniprise 1.3
Jabber, Inc.	Jabber Communications Platform 1.1
Microsoft Corp.	Microsoft MSN Messenger
Netscape Communications	Netscape Navigator Chat
Openwave Systems, Inc.	Openwave IM
PeopleLink	OnLine Community Solutions-Msg. Boards, Chat, Instant Messaging
Rockliffe, Inc.	MailSite DataCenter 4.5



Sonork S.R.L.	Sonork Instant Messaging Client 1.6 Sonork Instant Messaging Server 1.6
Wirebred Software	le/pop - Real-time Communication Software for Corporations 3.0
Yahoo!, Inc.	Yahoo! Instant Messenger

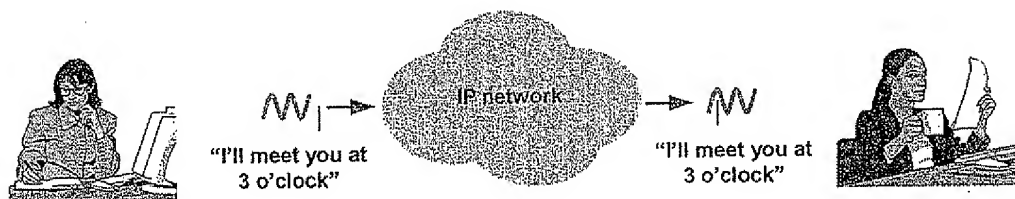
The big players are, of course, AOL and Microsoft. IBM has the most aggressive growth because they integrated their instant messaging platform into Lotus Notes.

However, even though these companies say they support VoIP conferencing (usually via Microsoft NetMeeting), they are primarily a text-based messaging system. If they do support voice, the only option is full, real-time communications – the same communication method as a phone, but with a noticeable reduction in voice quality. In fact, they require the user to use the PC as a replacement for the phone. This approach has had very limited success, and *recently Microsoft has announced they are dropping support for voice in their instant messaging product (MSN Messenger).*



No instant messaging vendor is concentrating on voice. We believe that by combining the best features of instant messaging with Voice over IP technology, we can provide a new form of communication – *instant voice*. This technology allows the user to send and receive voice messages with a *push-to-talk* feel.

Messages are recorded, digitized, encrypted, and transmitted instantly to anywhere in the world. Since the digitization occurs at the time of recording, the voice quality will not suffer degradation as the message moves through the Internet. The voice quality will be superb every time – regardless of the currently congestion on the global network.



The user still has the option of controlling the *realtime-ness* of the communication – allowing instant messages, instant voice mails, paging, or full, two-way connections to be used.

## Our Technology

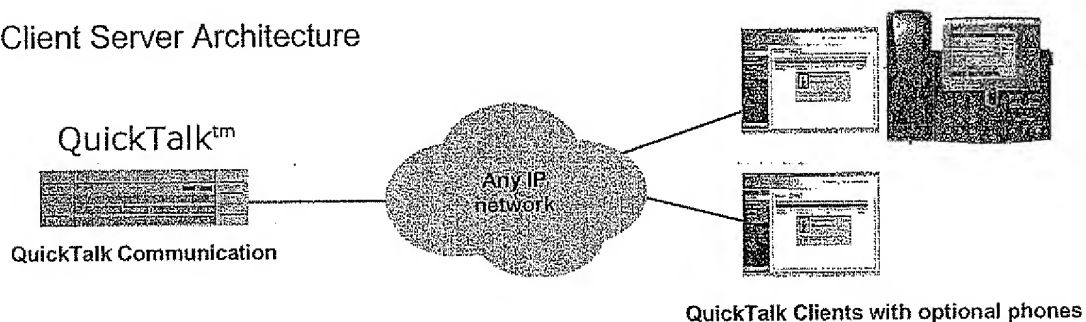
Our product philosophy involves three key elements:

- **Simplicity in use** – Above everything else, the product will be easy for ordinary people to use everyday. The product can be received with very little training. It must be obvious to the casual user how the product can be put to use.
- **Powerful in function** – Through the creation of business enhancing features, the product will provide immediate, real-world productivity on a daily basis.
- **Business class software** – The software is designed from the ground up by business people for business.

*Our flagship product, the QuickTalk Communication Platform<sup>™</sup>, is an enterprise class instant voice communication system designed to meet these goals. This system provides businesses with secure, manageable, and scalable instant voice communications. The product works with practically any existing phone system as an adjunct server providing advanced business-to-business collaborative communications.*

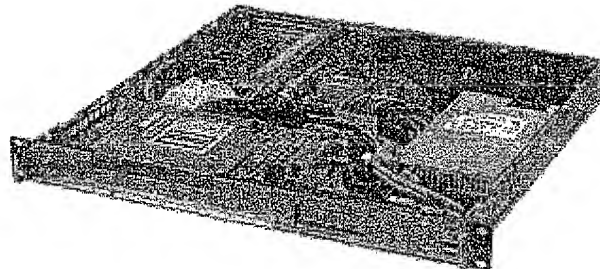
Leveraging the latest software technologies, the server software is .NET managed code running on a Windows .NET Server platform with a Microsoft SQL Server database.

### Client Server Architecture



The entire software platform is installed on a rack-mountable industrial-grade server. This server features a front panel LCD which can control everything from assigning the network address, to rebooting the system.

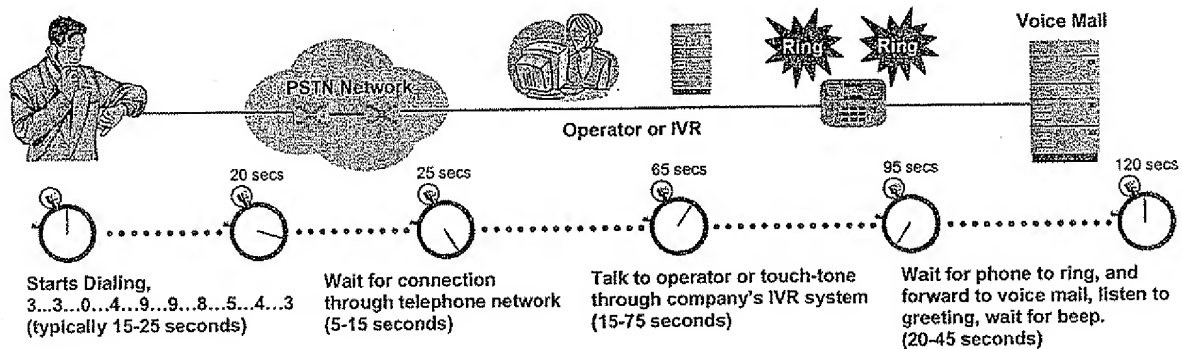
Multiple servers may be deployed for system redundancy and load balancing.



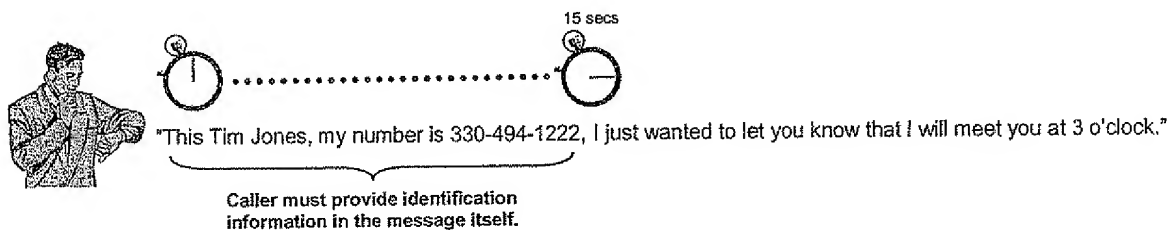
## Instant Voice Communications

When using this form of communication, the end user simply designates a recipient, speaks the desired message and the audio is digitized, compressed, encrypted and immediately delivered using voice over IP technology. It is fast, easy and convenient. You can think of this as voice mail in reverse. No more waiting for the beep – just leave your message and go.

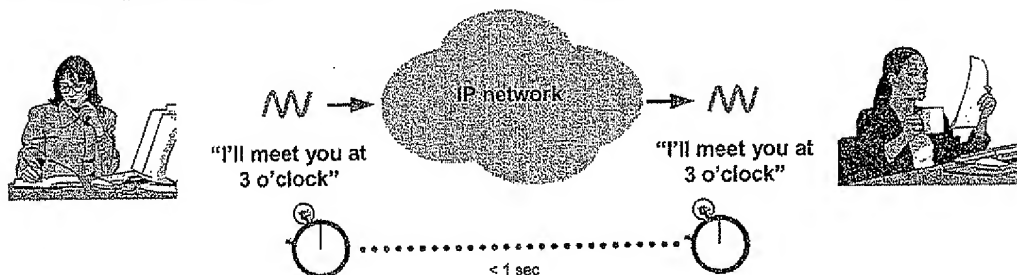
To see the benefit of using instant voice communication, look how an old-style voice mail message is delivered today:



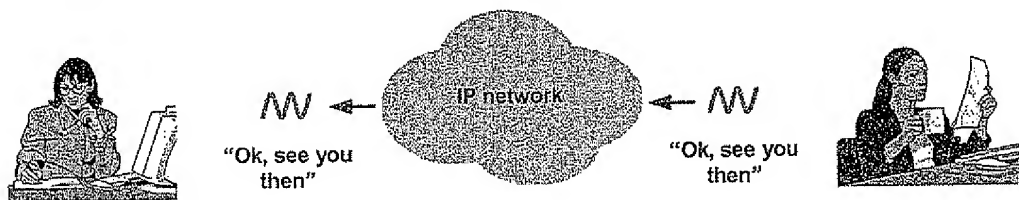
After dialing, connecting, transferring, ringing, and listening to the voice mail greeting, the caller has wasted over 1-2 minutes. This is the businessperson's typical waiting time *before* a voice message can begin. In addition to this waiting time, the caller must also spend time providing identification information in the voice mail message itself, further increasing the time of the entire effort.



With instant voice communication, the caller simply presses a **push-to-talk** button on her PC keyboard or her phone and speaks her message. The message is delivered *instantly* via her telephone (which can be set directly on speaker or with a special ring signal).



If the receiving party of the message wishes to reply, they can do so *instantly* by replying hands-free to the incoming message. The reply is delivered immediately to the sender.

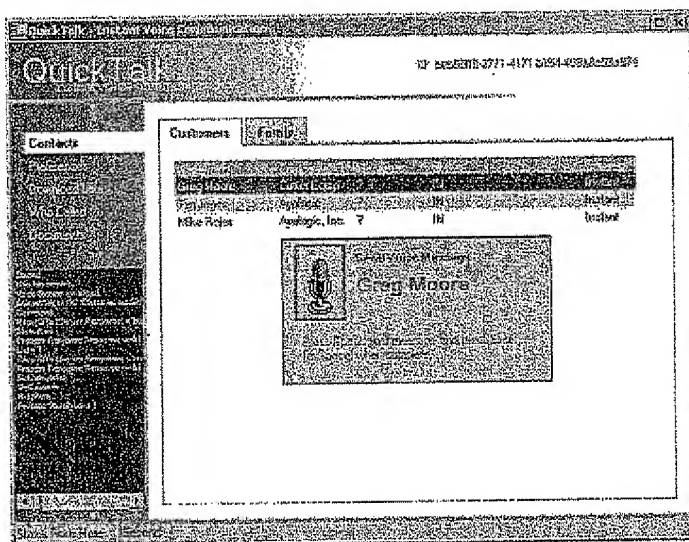


All of this occurred without dialing, transferring, connecting, or most importantly – waiting. The productivity gains are enormous. Let's look at a hypothetical ball bearing company.

Number of Employees	2000 employees
Average calls placed or received per day per employee (station-station and outside calls)	8 calls
Average salary of a employee	22.50 / hour
Percent of calls that reach voice mail or caller must wait for answer/callback	60% = 4.8 calls are "callbacks" or reach voice mail
Time wasted per call waiting to leave message	2 minutes
Total Time wasted in company per day	19,200 minutes per day
Total dollars saved using instant voice communications	\$7,200 / day = <b>\$1,872,000 / year</b>

Many companies spend hundreds of thousands of dollars on voice mail technologies so that they don't miss important messages. QuickTalk provides all the benefits of traditional voice messaging without the wait. The key to this technology is the patent-

pending technology in the QuickTalk client software. This runs on Windows 95/98, 2000, NT, and XP and provides an easy-to-use interface to the product.

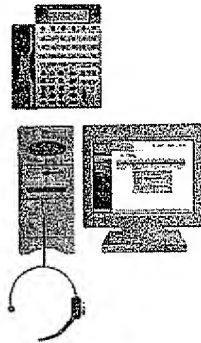


To use the technology, the user simply highlights the intended recipient, presses the space bar, and speaks the desired message. When the key is released, the message is instantly delivered to the intended contact.

If the user wishes to give or receive a more private conversation, the user may speak her message into a telephone instead of a PC microphone -- handoff is seamless between the client software and the physical telephony device.

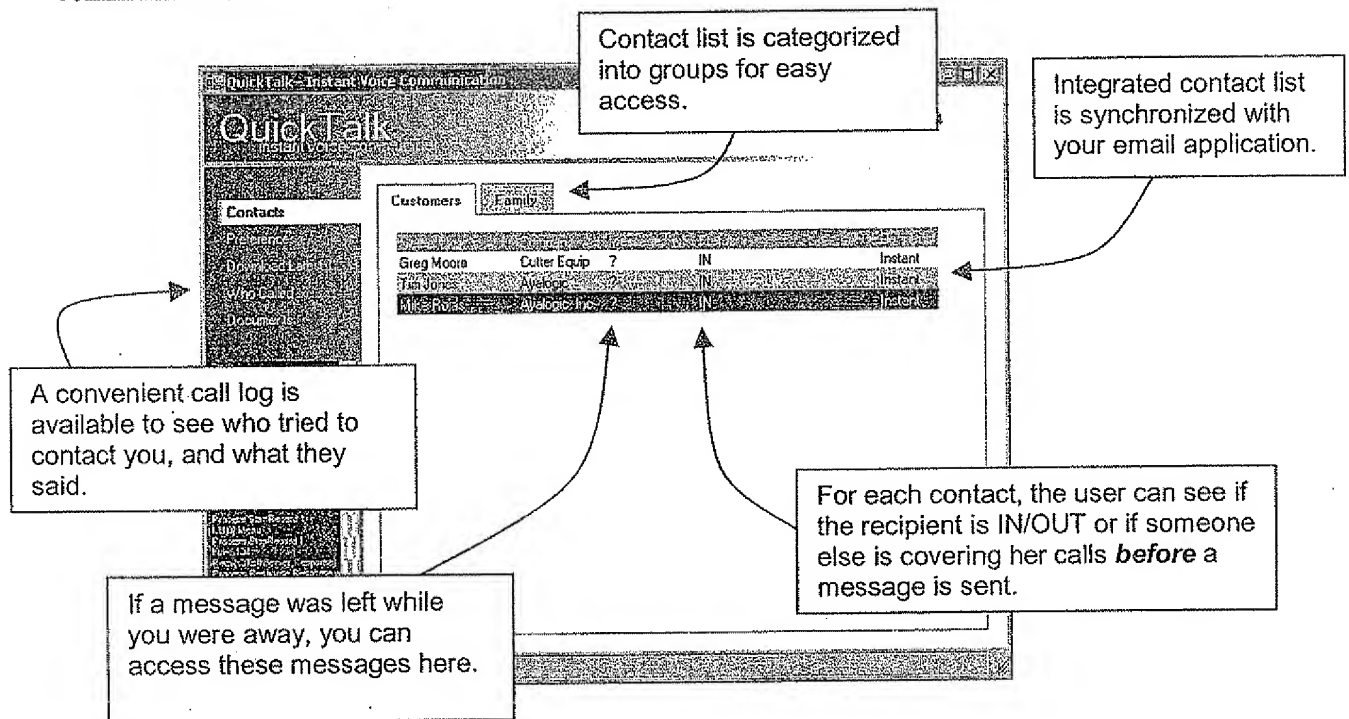


W →  
"I'll meet you at  
3 o'clock"

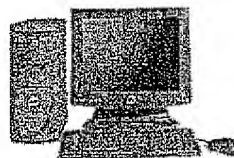


User has a choice of using the phone, PC microphone or headset for sending and receiving messages.

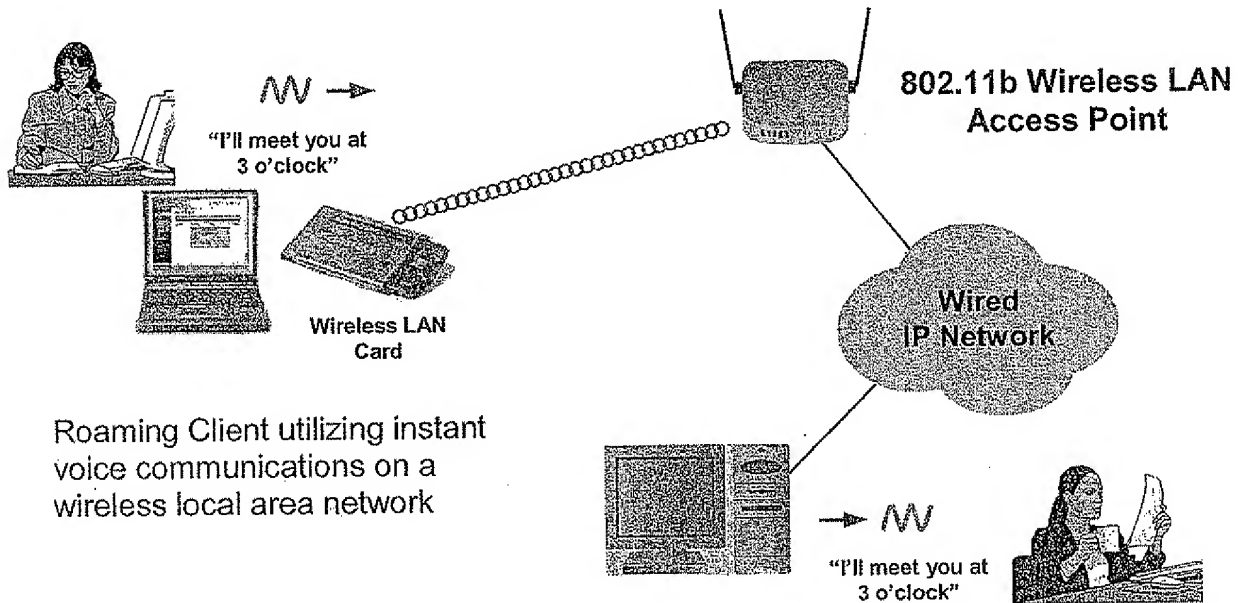
The client software provides a high-level view of all contacts using instant voice communications.



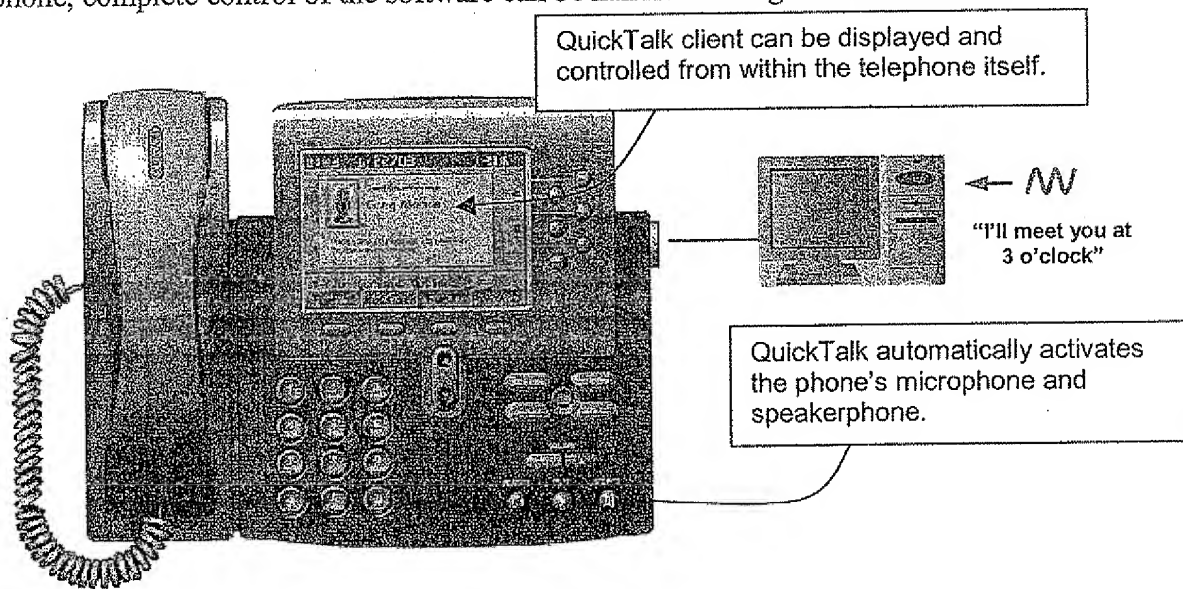
The client software can also be deployed on any system that utilizes the Microsoft .NET framework. This provides the flexibility to deploy the client onto a number of different computing devices: Pocket PCs, Laptops, Tablet PCs, and desktop computers.



When a wireless LAN card is added to the device, the client software can be configured for *cordless* instant voice communications providing mobility to the user.



Another important aspect of the client software is interoperability with the actual telephone infrastructure. When the client software is configured to utilize an actual phone, complete control of the software can be handled through the device itself.



QuickTalk can support Voice over IP telephony hardware such as Cisco, Snom, Polycom, Teliann, and Pingtel, as well as legacy, circuit-based telephone infrastructure. This allows the product to provide instant voice communications on the customer's existing telephone system.

QuickTalk supports the following vendors:

- Avaya™ DEFINITY® ECS and MERLIN MAGIX®
- Nortel Meridian® and Norstar®
- NEC NEAX, Electra Elite and i-Series
- Toshiba Strata DK
- Ericsson MD110
- Alcatel 4200 and 4400
- Iwatsu ADIX APS
- Panasonic DBS 576 and 576HD

**TOSHIBA**

**AVAYA**

**NORTEL  
NETWORKS**

**NEC** Empowered by Innovation

**ERICSSON**

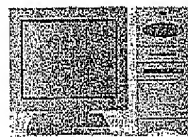
**ALCATEL**

**IWATSU**  
TELECOMMUNICATIONS PRODUCTS

**Panasonic**

Here the allowable configuration modes of the client:

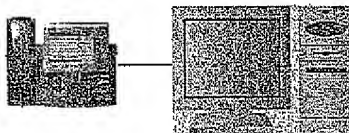
### Stand-Alone (PC Only)



In this mode, communication is provided through the PC's speakers and microphone. The user can utilize an optional headset for a private conversation.

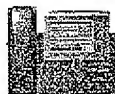


### Stand-Alone with locally controlled VoIP phone



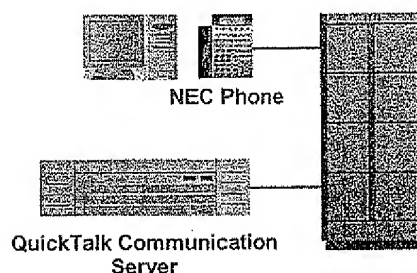
The user is free to use the phone and/or PC for instant voice communications. To transfer communication to the phone the user simply picks up the handset of the phone.

### Remotely controlled VoIP phone



In this mode, the phone is remotely controlled from a virtual client on the *QuickTalk Communication Platform*. This allows the phone to be used independently from a PC.

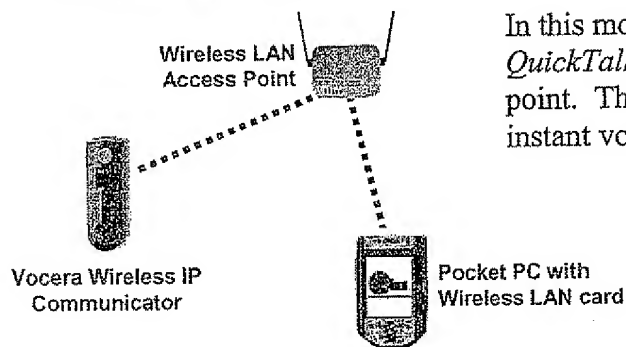
### Non-VoIP phone controlled by QuickTalk Server



In this mode, the phone is remotely controlled by the *QuickTalk Communication Platform*. Control is accomplished by using integration technology to connect to the existing telephone system. This configuration allows existing infrastructure to be used for instant voice communications.



## Wireless LAN IP devices



In this mode, the devices are remotely controlled by the *QuickTalk Communication Platform* via a wireless access point. This allows roaming clients to send and receive instant voice communications over a wireless network.

## A Different Voice

QuickTalk™ offers a product unlike any other. No other company offers voice over IP technology in such a clear and convenient form. None works so completely with different machines (phones, PCs, Pocket PCs) and brands with such flexibility and mobility. Instant messaging is intrusive and voice mail as we know it can be cumbersome. QuickTalk™ with its patent pending *instant voice* technology promises to be the most convenient and cost-effective messaging solution for business people on the move.





REDACTED

REDACTED

-----Original Message-----

From: Brad Corsello

REDACTED

Sent: Monday, August 11, 2003 11:45 AM

To: Michael J. Rojas

Subject: Meeting on Tuesday, August 19

Mike, following up on our phone conversation today, I've booked a flight for Tuesday, August 19 arriving at 11:35 at Akron-Canton. I'll just drive up from the airport and arrive at about 12:00-12:15 (or at a later time if that is more convenient for you).

REDACTED

REDACTED

This email is a confidential and privileged attorney-client communication.

REDACTED

This email is a confidential and privileged attorney-client communication.



REDACTED

REDACTED

REDACTED

----- Original Message -----

From: "Brad Corsello" <

To: "Neil Adams" <nadams@ayallogic.com>

Sent: Thursday, August 28, 2003 12:08 PM

Subject: Re: CD with IMvox software

> Neil, '

REDACTED

>

REDACTED

>

REDACTED

But I think we will wrap things

> up next week.

>

> On Wed, 2003-08-27 at 16:26, neil adams wrote:

>> Brad,

>>

>>

>>

>>

>

REDACTED

>>

REDACTED

REDACTED

REDACTED

> >

> > Do you have examples of prior patent submittals that answer these type  
> > of questions?

> >

> > Neil

>

>

>

>

REDACTED

> --

> This email is a confidential and privileged attorney-client communication.

>



REDACTED

REDACTED

-----Original Message-----

From: neil adams [mailto:nadams@ayalogic.com]

Sent: Monday, September 08, 2003 3:37 PM

To: mrojas@ayalogic.com

Subject: Patents - status, Brad

FYI

Neil

----- Original Message -----

From: "Brad Corsello" <bcorsello@corsellolaw.com>

To: "Neil Adams" <nadams@ayalogic.com>

Sent: Monday, September 08, 2003 3:21 PM

Subject: Re: CD with IMvox software

> Neil, I am working on it now and will have it to you tonight or tomorrow  
> morning.

>

> On Mon, 2003-09-08 at 10:04, neil adams wrote:

>> Brad,

>>

>> What's the status on changes to the patent app'n?

>>

>> Neil

>> ----- Original Message -----

>> From: "Brad Corsello" <bcorsello@corsellolaw.com>

>> To: "Neil Adams" <nadams@ayalogic.com>

>> Sent: Thursday, August 28, 2003 12:08 PM

>> Subject: Re: CD with IMvox software

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>>> On Wed, 2003-08-27 at 16:26, neil adams wrote:

>>>> Brad,

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REDACTED

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REDACTED

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>>>> Neil

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>>>> REDACTED

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>>> This email is a confidential and privileged attorney-client communication.

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> REDACTED

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> This email is a confidential and privileged attorney-client communication.

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REDACTED

REDACTED

From: neil adams [mailto:nadams@ayalogic.com]  
Sent: Wednesday, September 17, 2003 11:08 AM  
To: mrojas@ayalogic.com; misha@ayalogic.com  
Subject: CD for patents - questions

Mike,

Here's some additional information I need to add to the CD for Brad.

REDACTED

Questions

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED -

Neil



REDACTED

REDACTED

From: neil adams [mailto:nadams@ayalogic.com]  
Sent: Monday, September 22, 2003 12:29 PM  
To: bcorsoello@corsoello.com  
Cc: mrojas@ayalogic.com  
Subject: CD folders/files

Brad,

Attached is a compressed copy of the IMvox software and a Readme document that gives a brief overview of the software and hardware requirements.

REDACTED

REDACTED

Neil



REDACTED

REDACTED

From: neil adams [mailto:nadams@ayalogic.com]  
Sent: Thursday, October 30, 2003 1:03 PM  
To: mrojas@ayalogic.com; Herbert Breger (E-mail); jbreger@ayalogic.com;  
bdiehl@ayalogic.com; misha@ayalogic.com  
Subject: Prov patent forwarded to Paul Esatto at Scully et al.

The Provisional patent document was sent at 12:00 noon today.

REDACTED

Neil





REDACTED

REDACTED

From: neil adams [mailto:nadams@ayalogic.com]  
Sent: Tuesday, November 04, 2003 1:50 PM  
To: mrojas@ayalogic.com; Herbert Breger (E-mail)  
Subject: Scully contact/discussions

I talked with the person at Scully who will be responsible for supporting our patent application. He is Alex Vodovozov.

REDACTED

Basically we went through a variety of questions about the patent draft .....

REDACTED

REDACTED

REDACTED

Neil



REDACTED

REDACTED

From: neil adams [mailto:nadams@ayalogic.com]  
Sent: Thursday, November 06, 2003 2:28 PM  
To: mrojas@ayalogic.com  
Subject: Status - Patent Draft

Mike,

REDACTED

REDACTED

REDACTED

I am sending this version to Alex at Scully.

If you came up with a newer version please send it to me at nadams@sssnet.com.

I'll be back on Sunday and can review the changes prior to our 10:30 teleconference with Alex and Paul on Monday.

Neil



REDACTED

REDACTED

-----Original Message-----

From: Alex Vodovozov [mailto:avodovozov@ssmp.com]

Sent: Tuesday, December 02, 2003 5:09 PM

To: mrojas@ayalogic.com

Cc: Nadams@sssn.net

Subject: IVM appl.

Dear Mike and Neil:

Please see a draft of the application.

REDACTED

Thank you for your assistance.

Regards,

Alexander G. Vodovozov, Esq.  
Scully, Scott, Murphy & Presser  
400 Garden City Plaza  
Garden City, New York 11530  
(516) 742-4343 (telephone)  
(516) 742-4366 (facsimile)  
avodovozov@ssmp.com (email)

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REDACTED

REDACTED

From: neil adams [mailto:nadams@ayalogic.com]  
Sent: Tuesday, December 09, 2003 4:30 PM  
To: 'Herbert Breger'; mrojas@ayalogic.com  
Subject: Latest draft mods sent to Alex for review.

REDACTED

REDACTED

Neil